

**PATENT COOPERATION TREATY**  
**PCT**  
**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter II of the Patent Cooperation Treaty)

**(PCT Article 36 and Rule 70)**

Applicant's or agent's file reference <b>BP109077</b>	<b>FOR FURTHER ACTION</b>		See Form PCT/IPEA/416
International application No. <b>PCT/FI2004/000250</b>	International filing date (day/month/year) <b>22.04.2004</b>	Priority date (day/month/year) <b>22.04.2003</b>	
International Patent Classification (IPC) or national classification and IPC <b>A23L1/30, A23L2/52, A23L2/60, A23L2/02, A23C9/152, A23C9/13</b>			
Applicant <b>RAISIO BENECOL OY et al</b>			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> <i>(sent to the applicant and to the International Bureau) a total of sheets, as follows:</i></p> <p style="margin-left: 20px;"><input type="checkbox"/> <i>sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</i></p> <p style="margin-left: 20px;"><input type="checkbox"/> <i>sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the International application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</i></p> <p>b. <input type="checkbox"/> <i>(sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</i></p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand <b>22.02.2005</b>	Date of completion of this report <b>05.08.2005</b>		
Name and mailing address of the international preliminary examining authority:   <b>European Patent Office - P.B. 5818 Patentlaan 2  NL-2280 HV Rijswijk - Pays Bas  Tel. +31 70 340 - 2040 Tx: 31 651 epo nl  Fax: +31 70 340 - 3016</b>	Authorized Officer  <b>Tallgren, A</b> Telephone No. +31 70 340-3933		



INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITYInternational application No.  
PCT/FI2004/000250

JC20 Recd/RECEIPT 20 OCT 2005

## Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
  - This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of:
    - international search (under Rules 12.3 and 23.1(b))
    - publication of the international application (under Rule 12.4)
    - international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):
  - a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

## Description, Pages

1-25 as originally filed

## Claims, Numbers

1-34 as originally filed

3.  The amendments have resulted in the cancellation of:
  - the description, pages
  - the claims, Nos.
  - the drawings, sheets/figs
  - the sequence listing (*specify*):
  - any table(s) related to sequence listing (*specify*):
4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
  - the description, pages
  - the claims, Nos.
  - the drawings, sheets/figs
  - the sequence listing (*specify*):
  - any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/FI2004/000250

**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes: Claims	11-31,33,34
	No: Claims	1-10,32
Inventive step (IS)	Yes: Claims	33,34
	No: Claims	1-32
Industrial applicability (IA)	Yes: Claims	1-34
	No: Claims	

**2. Citations and explanations (Rule 70.7):**

**see separate sheet**

**JC20 Rec'd PCT/PTO 20 OCT 2005**

The communication from the applicant dated 22.2.2005 has been taken into consideration while drafting this IPER.

**ITEM V**

1. The following documents (D) are referred to in this communication; the numbering will be adhered to in the rest of the procedure:

- D1: WO 01/54686 A (NIEHOFF RAYMOND LOUIS ; PROCTER & GAMBLE (US); SARAMA ROBERT JOSEPH (U) 2 August 2001 (2001-08-02)
- D2: WO 02/082929 A (RAISIO BENECOL OY ; HOPIA ANU (FI); PALMU TAPIO (FI); POURU ANNIINA (F) 24 October 2002 (2002-10-24)
- D3: WO 02/28204 A (KIM BO CHUN ; KIM KAB SIG (KR); HAN JUNG HEE (KR); HONG HYUNG PYO (KR)) 11 April 2002 (2002-04-11)

**2. NOVELTY OBJECTIONS**

A composition claim containing for example "for masking bitter" and "for replacing sweetening agent" mean only a composition, which is suitable for stated use (PCT international search and preliminary examination guidelines Chapter 5.23). In a composition/product claim the use is not regarded as such a limitation as in a method or use claim.

D1 describes an healthy food product containing sterols to reduce the bitter taste of arginine (page 2 paragraphs 2,3). There is also a sweetener composition (carbohydrate or non-carbohydrate) from about 0.1-20 % (page 27 paragraph 5- page 28 paragraph 1). The amount of the sweetener may be reduced by another component (page 28 paragraph 1). Use in foodstuff and beverages (low viscosity food) is also claimed (milk, fermented milk, yoghurt-like products, juices, ice-cream, cereal based) (claim 4, page 20 paragraph 6- page 22 paragraph 1, page 25 paragraphs 2, page 27 paragraphs 2,4- page 29 paragraph 1). Consequently, the subject matter of claims 1-9,32 is considered as being not new in view of D1 (Art 33 (2) PCT).

D2 describes an healthy food or beverage product containing sterols. There is also a sweetener composition (carbohydrate). The strong taste of B-glucan is weakened (page 11 line 26-28). Use in foodstuff and beverages (low viscosity food) is also claimed (milk, juices, cafe, tea, ice cream) (claims 8,12,13,18, examples 1-13, page 5 line 31- page 6 line 21, page 11 lines 18-28). Consequently, the subject matter of claims 1,3,4,7-9 is considered as being not new in view of D2 (Art 33 (2) PCT).

### **3. INVENTIVE STEP OBJECTIONS**

D3 describes an healthy beverage product containing sterols. There is also a sweetener composition (carbohydrate). The composition has no influence of the taste of the end product. Use in foodstuff and beverages (low viscosity food) is also claimed (milk, juices, cafe, tea, soy milk) (claim 18, examples 6,8, page 9 lines 30-33, page 26 lines 5-10).

D1-D3 define the use of sterol (ester) and carbohydrate sweetening agent in wide range of beverages and related products. D1 is especially relevant to claims 19-25, 29-31, D2 to claims 10,19-29 and D3 to claims 10, 12-23. The modifications in claims 10-31 are regarded as such a small change to beverages described in D1-D3 and comes within the scope of the customary practice followed by persons skilled in the art, especially as the advantages thus achieved can readily be foreseen. Consequently, the subject matter of claims 10-31 is considered as being not inventive in view of D1-D3 (Art 33(3) PCT).

### **4. NOVEL AND INVENTIVE CLAIMS**

There is no document cited in the search report to use sterol esters in an edible product for replacing part of a sweetening agent. The closest prior art (D1) teaches the use of sterol esters to reduce bitter taste of arginine. However, there is no hint given specifically to reduce the amount of the sweetener by sterols and simultaneously mask bitter, sour and astringent taste. This does not come within the scope of the customary practice followed by persons skilled in the art. Consequently, the subject-matter of claims 33-34 is found novel and inventive (Art 33(2) and (3) PCT).